ADASS Abstract

You have submitted the following information regarding your ADASS presentation or computer demonstration:

An oral presentation given by William Green
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Title: SIRTF Science Operations System Design

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SIRTF Science Operations System Design William B. Green Manager, SIRTF Science Center California Institute of Technology M/S 310-6 1200 E. California Blvd. Pasadena CA 91125 (626) 395 8572 Fax (626) 568 0673 bgreen@ipac.caltech.edu The Space Infrared Telescope Facility (SIRTF) will be launched in December 2001, and perform an extended series of science observations at wavelengths ranging from 20 to 160 microns for five years or more. The California Institute of Technology has been selected as the home for the SIRTF Science Center (SSC). The SSC will be responsible for evaluating and selecting observation proposals, providing technical support to the science community, performing mission planning and science observation scheduling activities, instrument calibration during operations and instrument health monitoring, production of archival quality data products, and management of science research grants.. The science payload consists of three instruments delivered by instrument Principal Investigators located at University of Arizona, Cornell, and Harvard Smithsonian Astrophysical Observatory. The SSC is responsible for design, development, and operation of the Science Operations System (SOS) which will support the functions assigned to the SSC by NASA. The SIRTF spacecraft, mission profile, and science instrument design have undergone almost ten years of refinement. SIRTF development and operations activities are highly cost constrained. The cost constraints have impacted the design of the SOS in several ways. The Science Operations System has been designed to incorporate a set of efficient, easy to use tools which will make it possible for scientists to propose observation sequences in a rapid and automated manner. The use of highly automated tools for requesting observations will simplify the long range observatory scheduling process, and the short term scheduling of science observations. Pipeline data processing will be highly automated and data-driven, utilizing a variety of tools developed at JPL , the instrument development teams, and Space Telescope Science Institute to automate processing. An incremental ground data system development approach has been adopted, featuring periodic deliveries that are validated with the flight hardware throughout the various phases of system level development and testing. This approach minimizes development time and decreases operations risk. This paper will describe the top level architecture of the SOS and the basic design concepts. A summary of the incremental development approach will be presented. Examples of the unique science user tools now under final development prior to the first proposal call scheduled for mid-2000 will be shown.

Comments:

Oral Presentation. Any day is OK, except last afternoon of the conference if that can be avoided. A final decision on which web-based tools will be used to illustrate this presentation will be made just prior to the conference. I would plan to switch between Powerpoint presentation and web browser during the presentation.

You have requested the use of the following equipment:

Windows computer Video Projector